

SCIENCE & GOVERNMENT REPORT

The Independent Bulletin of Science Policy

Vol. III, No. 22

P.O. Box 21123, Washington, D.C. 20009

Dec. 15, 1973

Nixon's Energy R&D Plan: Less Than Meets the Eye

The Nixon Administration's loudly touted energy R&D program is considerably less ambitious than the program authorized by the Senate last week, and it provides only a fraction of the funds that will be needed to attain energy self-sufficiency.

That's the conclusion that emerges from a comparison of the Administration's latest plans, as embodied in a Dec. 1 advisory report to the President from AEC Chairman Dixy Lee Ray, with Senate Bill 1283, the National Energy Research and Development Policy Act of 1973, which was approved 82-0 in the Senate on Dec. 7.

Many commentaries have tended to assume that the two plans involved essentially the same level of effort, since the President described his program as a \$10-billion effort over five years, and the Senate bill, spearheaded by Sen. Henry Jackson (D-Wash.), called for a \$20-billion effort over ten years.

But a substantial part of the Nixon program (40 per cent under the proposals submitted by Dr. Ray, who headed a task force charged with developing recommendations for how to spend the \$10 billion) would be devoted to nuclear research, whereas S.1283 is devoted to non-nuclear research only; it assumes that the already substantial nuclear R&D programs will continue to grow outside of the framework provided by S.1283. Explanatory material issued by the Senate Interior Committee indicates that total spending under S.1283 combined with the nuclear programs that are projected would be more

than \$15 billion over a five-year period (1975-79), or half again as much as the Administration contemplates spending over that same period.

Moreover, the Administration's \$10-billion program represents only a portion of the funds that will be needed to achieve self-sufficiency. The Dec. 1 advisory report submitted by Dr. Ray (*The Nation's Energy Future*, available for \$1.95 from the US Government Printing Office, Washington, D.C. 20402, Stock No. 5210-00363) distinguishes between an R&D program and a production program. It concludes that "the bulk of the research and development program cannot be expected to make big differences in energy production rates in any short time."

Dr. Ray, in presenting the report to a Dec. 10 meeting of the President's Energy R&D Advisory Council,

(Continued on page 2.)

In Brief

The appointment of Treasury Undersecretary William Simon as Nixon's fourth energy "czar" this year isn't regarded in Washington as likely to alleviate the colossal energy mess that the Administration has promoted with its pollyannish assessments of the energy picture. Furthermore, the main argument in the Capitol now is whether Nixon will depart via resignation or impeachment, but few expect he'll be around three months from now. And when he's gone, still another energy shakeup may be anticipated.

To be announced in *Science* after the elders of the AAAS work out a suitably opaque press release: the resignation of AAAS Executive Officer William Bevan, following three years of service.

The nation's top energy advisers have produced experimental evidence that "voluntarism" will not work in reducing energy consumption significantly. At the recent meeting of the President's Energy R&D Advisory Council, Louis Roddis, vice-chairman of New York's Consolidated Edison Co., complained that it is difficult to motivate the mass of the American people to cut BTU consumption. "I have enough faith in the American people to believe the mandatory approach is the one you have to do," Roddis said. To which nuclear physicist Edward Teller concurred by noting that half the lights at the Council's meeting in the NSF board room could probably be cut off without impairing the proceedings. "We are not motivated around this table," he said, "otherwise we'd fiddle with these switches."

Telling It Like It Is

The following verbatim excerpt is from a "sanitized" version of a staff report on US Security Issues in Europe, published this month by the Senate Foreign Relations Committee:

Of these (deleted) warheads, (deleted) were in (deleted). In addition, there were (deleted) and (deleted) warheads of various types committed to NATO on some (deleted) ships.

Thus, the total number of warheads in NATO Europe (deleted) was (deleted) not including the approximately (deleted) afloat (deleted). Of these (deleted) or about 80 percent were for tactical weapons which could be used for offensive or defensive purposes—(deleted) missiles, (deleted) bombs and (deleted) artillery warheads. The remaining (deleted) or about 20 percent were for tactical weapons which are purely defensive—(deleted) for surface-to-air missiles (deleted)....

ENERGY (Continued from page 1.)

suggested that it might cost another \$50 billion to bring about exploitation of the advances emanating from the R&D program, though she provided no detailed breakdown of that figure and did not indicate whether that sum would come mainly from industry or government.

There is considerable confusion as to how the R&D program relates to Project Independence, the President's avowed goal of achieving energy self-sufficiency by 1980. To begin with, there is no definition of self-sufficiency. William Simon, the newly appointed energy czar for the Administration, told the council that "everybody has a different definition . . . we do not have a government position" on what percentage of imports would be allowed, if any, under a policy of self-sufficiency.

Then, there is uncertainty as to how great a contribution the R&D program can make toward self-

National Academy Seeks Input from Citizen Groups

The National Academy of Sciences, which has been buffeted by criticism that its advisory work for the federal government is often biased by subservience to powerful interests, has quietly taken steps to encourage greater "public input" into the deliberations of its advisory committees.

In an internal memorandum dated September 17, Academy President Philip Handler has reminded the heads of NAS advisory units: "There may be organized public bodies, citizen groups, etc., or easily-identified individuals whose knowledge and informed views warrant the consideration of a specific study committee. Consistent with the spirit of open scientific inquiry, it is recommended that, whenever such a situation may be recognized, notice be served, by means appropriate to the specific instance, that the study is under way and that opportunity be created, early in the study, for the committee to receive constructive contributions from such interested parties." He suggested that methods for soliciting "public inputs" might range from inviting the submission of written statements to holding public hearings with a formal record.

The steps are not apt to satisfy public interest groups which, because of fears that some Academy committees are influenced by the views of government agencies or industries with which they have close ties, have sought the right to attend the meetings of those committees and to review the evidence upon which they base their recommendations. But viewed in the context of the Academy's traditional mode of operation, in which advisory committees meet behind closed doors in haughty indifference to clamors for greater public participation, the new policy, if it results in any significant change in committee operations, is at least a small step toward improving the "balance" of Academy studies.

sufficiency. Dr. Ray's report states that "self-sufficiency (defined as zero energy imports) may be attained by 1985 (five years after Nixon's deadline) with the expected payoff of the proposed research and development program," but that statement is based on the assumption that the government will adopt pricing or other policies to spur commercial application of R&D findings. To reach zero imports by 1980, the report said, would require "extraordinary measures" to restrict consumption and increase domestic production of energy.

IBM Vice-President Lewis Branscomb, a member of the advisory council, said he was "thoroughly confused" by the explanation of how R&D relates to Project Independence. He questioned the adequacy of Dr. Ray's plan since it does not address the question of how to bring about exploitation, yet "R&D without exploitation is useless."

Much of the confusion stems from the fact that Dr. Ray was asked to draw up R&D plans well before the President conceived of Project Independence. Thus the R&D plan is not really aimed at prompt self-sufficiency; nor does it deal with all policy aspects of how to achieve self-sufficiency. As Dr. Ray explained it, "You don't go back and say, 'Prez, You gave us the wrong job.' You do what you're told to do."

The final version of Dr. Ray's recommendations differs somewhat from an earlier draft discussed in SGR Vol. III, No. 21. The new five-year budget recommendations would reduce fission R&D by \$300 million and fusion by \$100 million as compared to the earlier draft while boosting conservation R&D by \$100 million and coal research by \$300 million, the latter chiefly to accommodate a new program aimed at encouraging immediate construction of full-scale commercial plants using existing technologies for producing synthetic fuels from coal.

The final version has also revised downward estimates of the amount that would have been spent on energy R&D over the next five years even without a crash effort, with the result that the Administration now claims its recommended program represents more than a doubling of the federal level of effort.

Members of the advisory council made many criticisms of the plan, including assertions that it failed to allocate enough funds for basic research, manpower development, environmental research, and immediate conservation efforts. There was also grumbling that Dr. Ray's report suggests a \$1-billion supplemental program (above the \$10-billion program) which would deal with environmental effects, basic research, and manpower, but this supplemental program has not been made an integral part of the plan. It is thus particularly vulnerable to budget-cutting.

Dr. Ray's recommendations are subject to change by Energy Czar Simon's office and by OMB, while Jackson's S.1283 may be modified as a result of House action.—PMB

Bigger Role Proposed for House Science Committee

After nearly a year of deliberations, a special study group appointed by the House of Representatives has recommended an extensive realignment of the House's committee structure, including a major expansion of jurisdiction for what is now the Committee on Science and Astronautics.

The study, carried out by a Select Committee on Committees that was created last January, drew virtually no notice when its chairman, Rep. Richard Bolling (D-Mo.), released the report at a press conference Dec. 7. But with the Executive Branch in a condition of near-paralysis, and Congress lately stirring in its self-dug grave, the time isn't too bad for the legislative branch to attempt to instill some sense in the jurisdictional patchwork that constitutes its committee layout.

Titled *Committee Structure and Procedures of the House of Representatives* (available without charge from the Select Committee on Committees, House of Representatives, Washington, D.C.), the study recommends that the Committee on Science and Astronautics be reconstituted as the Committee on Science and Technology. Along with the name change, the committee would acquire a great deal more authority beyond its present jurisdiction, which, however it is labeled, is essentially confined to NASA, science policy meditations, the National Science Foundation, and the National Bureau of Standards. The Committee is also deep into energy, but with other committees deeply rooted in the subject, Science and Astronautics has been confined to holding hearings and issuing studies; it lacks authority to write any laws in the field of energy.

Institute of Medicine Assails US Attacks on Viet Hospitals

Attacks on enemy hospitals by US forces during the period of direct American participation in the Vietnam War have been denounced by the Council of the Institute of Medicine of the National Academy of Sciences as "morally reprehensible."

In a statement issued following its most recent meeting, the 21-member Council cited press reports and congressional testimony by Vietnam veterans concerning US attacks on enemy medical facilities, and declared:

"The Council of the Institute of Medicine wishes to state publicly its belief that deliberate selection of enemy hospitals for attack by any nation's military forces is morally reprehensible. The Institute hopes that other organizations everywhere concerned with health will join in a reaffirmation of the 1949 Geneva Convention, which proscribes the destruction of hospitals in acts of war."

In connection with the Institute's request for company in denouncing such acts, SGR counsels limitless patience.

As recommended by the Select Committee, the proposed Committee on Science and Technology would share "overview" authority for military R&D with the Armed Services Committee; that's not the same as having primary jurisdiction to handle the annual military authorization bill, but it's a wedge into a subject that has been jealously presided over by Armed Services. Science and Technology would also acquire jurisdiction over the National Oceanic and Atmospheric Administration; it would take this from Merchant Marine and Fisheries, which, if the Select Committee has its way, would simply disappear.

In addition, the proposed Committee would become the focal point for House consideration of energy matters, with authority being taken from Interior, Commerce, Merchant Marine and Fisheries, and the Joint Committee on Atomic Energy. The report does not address itself to the fate of the powerful JCAE, since the subject under review is the House alone, but the implication is that the JCAE might also fade away.

Other jurisdictional acquisitions proposed for the new Committee are civil aviation, which it would take from Commerce; environmental R&D, which it would take from Interior, Public Works, Commerce, and Merchant Marine and Fisheries, and weather, which would come from Commerce along with NOAA.

With the space program in the doldrums, Science and Astronautics has so diminished in congressional

(Continued on page 4.)

NIE Salvages Research Grants

The National Institute of Education has managed to come up with some \$5 million for a small research grants program this year despite a budget debacle in which Congress cut the agency's fiscal 1974 request by more than 50 per cent (SGR, Vol. III, No. 19).

The money, which was obtained by deferring certain other payments from the end of the current fiscal year to the beginning of the next year, is less than half the total NIE made available for research grants in fiscal 1973.

As a result NIE's latest grants manual invites applications, but warns, "In the previous competition 206 awards were given in response to more than 4000 applications. This year reduced funds will be available for this program."

Because of the lack of funds, NIE has selected only five issues as the focus of research: essential skills; relevance of education to work; diversity, pluralism and opportunity in educational systems; production and utilization of knowledge; efficiency and productivity in education.

Guidelines for submitting prospectuses are available from NIE, Office of Research Grants, Washington, D.C. 20208.

HOUSE (Continued from page 3.)

interest that there have been some difficulties in filling its seats. Last year, for example, membership there was deemed so unimportant that the Committee was designated as of second rank so that recruits would not run afoul of a House rule limiting members to one major committee. But with energy now the all-consuming issue on Capitol Hill, refurbishment as the prime center for energy legislation could all at once turn the Committee into a powerful and much-desired place.

The proposed reorganization both gives and takes, and in the latter category, Science and Technology would lose jurisdiction over "science scholarships" and biomedical R&D, which is not much of a loss, since Science and Astronautics never did much in either field.

Among the other changes proposed is one for the Interior and Insular Affairs Committee to be reorganized under the name of Energy and Environment, with authority over a great many programs that fall under that label, but little or none for research. Thus, Energy and Environment would take over from the JCAE as the committee handling laws governing radiation standards; and from the Interstate and Foreign Commerce Committee, it would acquire authority over clean air, drinking water, noise, and solid waste. In addition, it would take over from Merchant Marine and Fisheries authority for environmental policy and coastal zones.

The recommendations also call for retitling the Committee on Interstate and Foreign Commerce as Commerce and Health. As now constituted the Committee has jurisdiction over biomedical research, but for reasons that Select Committee members failed to make clear to SGR, it is stated in the report that Commerce and Health "gains" biomedical research, while the new Science and Technology Committee acquires overview authority on the subject. Health service training, however, would be shifted to the Education Committee as part of a split-up of the currently combined Education and Labor Committee.

Other recommendations are for a system of voluntary rotation of committee assignments, plus the creation on each committee of an overview subcommittee which would carry out follow up studies of the implementation of committee actions.

The House, is such a complex, personality-dominated organism that it is difficult to assess what effects might ensue if the proposals are enacted. But almost any changes that work to break up the encrustments resulting from seniority and ancient alliances are more likely to be good than bad. In general, though these multitudes of shifts may mean nothing by themselves, their effect would probably be to diminish the power of some of the antique fixtures in the establishment.

The report is now in the hands of the Rules Committee, which is expected to schedule it for floor action sometime before Easter. Meanwhile, the Senate has been rumbling about making a similar study of its committee jurisdictions, but so far is yet to take action.

NIH Gets Substantial Boost in Budget

The National Institutes of Health will get a budget boost of \$500 million to \$600 million under a compromise reached between Congress and the White House over the fiscal 1974 appropriations bill for the Department of Health, Education and Welfare.

The compromise, which ends two years of warring over the HEW appropriations bill, will give NIH at least \$2.46 billion, and possibly as much as \$2.57 billion, for fiscal 1974 (the current year), compared with the \$1.96 billion the Administration had originally requested.

The amount that will be available to NIH can only be stated within limits because of an unusual provision inserted into the bill in order to gain the President's signature.

For the past two years the President has vetoed all HEW appropriations bills sent to him on the ground that they called for excessive spending. Last week Congress passed a 1974 appropriations bill that again called for far more spending than the President desired (\$32.9 billion instead of the President's budget request of \$31.5 billion). But as part of a deal worked out with the White House, Congressional conferees agreed that the Administration could refrain from spending up to \$400 million of the total appropriated, provided that no single program is cut more than 5 per cent, a provision designed to make certain that the Administration doesn't cancel entire programs by impoundment. Even if the Administration holds back the full \$400 million, the HEW budget will still be almost \$1 billion higher than Nixon wanted.

The compromise bill passed the House by 371 to 33 on Dec. 5, and the Senate by 85 to 3 on Dec. 7. Both margins were far more than the two-thirds needed to override a presidential veto, a factor which undoubtedly led the politically battered White House to announce that the President was "very pleased" with the legislation and looked forward to signing it.

The Congressional conference report contains a table indicating the amounts that will be available to specific programs if the President withholds the full \$400 million. Even with the reduction, each of the institutes that comprise NIH would get more than the President requested. The largest single increase would go to General Medical Sciences, which would get \$167.9 million instead of \$138.5 million as requested, a boost which should ease concerns that basic biomedical research is being neglected in favor of categorical disease programs. Cancer would get the next largest boost, \$523.6 million instead of the \$500 million requested. If Nixon does not withhold funds, Cancer would get \$551.1 million and General Medical Sciences \$176.7 million.

HEW programs that were cut by Congress below the level requested by the President are exempt from further cuts. Thus the National Institute of Education, which suffered a stunning cut to \$75 million from the original request of \$162 million, will be spared further agony and left at \$75 million.

OTA Names Deputy Director, Advisory Council

With former Congressman Emilio Q. Daddario installed as director, the congressional Office of Technology Assessment (OTA) has been rapidly organizing itself for Capitol Hill's pioneering venture into reading the future.

At a meeting Dec. 5 of OTA's supervisory board of senators and representatives, approval was voted for Daddario's nomination of Daniel V. DeSimone to serve as deputy director. A lawyer-engineer with long service at the National Bureau of Standards and various niches in the now-defunct White House science advisory apparatus, DeSimone has most recently been in a holding pattern at NSF as chief of staff of the vestigial Federal Council for Science and Technology, which the Foundation inherited from the old White House science office.

The OTA board also gave its approval to the appointment of 10 outside members for the Technology Assessment Advisory Council (see box), which is supposed to meet periodically to bring the benefits of independent thinking to the new organization. Of these appointments, the most noteworthy aspects are that MIT President Jerome B. Wiesner accepted with the understanding that he would not fulfill widespread expectations and take the chairmanship. That he would serve at all amidst the burdens of holding MIT together in these trying times is mainly a reflection of his long relationship with the Kennedy clan—Senator Edward Kennedy being the chairman of the OTA Board until the end of 1974. Missing from the list is a longtime associate of the

Following are the members of the Technology Assessment Advisory Council of the Office of Technology Assessment:

Harold Brown, president, Caltech

J. Fred Bucy, executive vice president, Texas Instruments

Hazel Henderson, writer, lecturer and "environmental activist," Princeton, N.J.

J. M. Leathers, executive vice president, Dow Chemical

John T. McAlister, Jr., school of engineering, Stanford University

Eugene P. Odum, director, Institute of Ecology, University of Georgia

Frederick C. Robbins, nobel laureate, medicine, Case Western Reserve University

Edward Wenk Jr., professor of engineering and public affairs, University of Washington

Jerome B. Wiesner, president, MIT

Gilbert F. White, director, Institute of Behavioral Sciences, University of Colorado

Serving *ex officio* are: Lester S. Jayson, director, Congressional Research Service, and Elmer B. Staats, Comptroller General.

OTA concept, Harvard's Harvey Brooks. The explanation is simply that, in accord with congressional custom, the advisory slots had to reflect a geographical distribution, and with Daddario of Connecticut and Wiesner of Massachusetts signed on, that was considered to be sufficient for New England. But it is expected that Brooks will be active on panels that will be set up for special purposes.

The Board also agreed to ask Congress to give OTA \$5 million for the fiscal year that starts next July 1. The expectation is that most of the money will be used to buy studies from outside organizations, though for the purpose of formulating and evaluating the studies, OTA is not going to be threadbare in terms of inhouse staff resources. Final figures have not yet been determined, but educated guesses range from 30 to 100 professional and clerical staff.

A number of other details remain to be settled. The Board, made up of six members from each house, is chaired by the Senate for the first two years, and is supposed to be vice chaired by the House. Normally, the vice chairmanship would be an empty title, but since Kennedy is so often on the road, the House members have shown an unusually keen interest in the job, with Reps. Charles A. Mosher (R-Ohio) and John Davis (D-Ga.) reportedly deadlocked.

OTA is currently housed in three rooms on Capitol Hill in the old Congressional Hotel, which has been taken over by the House as an annex for various overflows from regular office space. At present, the staff consists of Daddario and two secretaries, with DeSimone due to arrive in a week or so. The mailing address is Office of Technology Assessment, U.S. Congress, Washington, D.C., and the telephone number (202) 225-9041.—DSG

US-Israeli Foundation Stirring

That newly established US-Israeli Bi-National Foundation is making progress toward doing what it was set up to do—spend some \$1.2 million a year for support of research in Israel.

The Foundation's executive committee met a few weeks ago in Washington, with John Schaefer, president of the University of Arizona, and David Sencer, one of HEW's top research administrators, representing the US side; the Israelis were represented by Ernst Bergmann, chairman of the science section of the Israeli Academy of Science and Humanities (he's also a top Israeli military scientist), and Yoash Vaadia, chief scientist of the Ministry of Agriculture.

The four went over final details for setting up panels to review grant applications, and other administrative matters that must be settled before grants are awarded.

There is still no final resolution of how the Foundation is to be operated on a day-to-day basis. The Israeli desire to have a parttime executive director has been partially accommodated by appointing one of their officials, Eleazer Tal, as acting director, but it has been agreed that the appointment is temporary and will be reviewed when the full board meets in February.

No Boom Seen in US-USSR High-Technology Trade

Following President Nixon's visit to the Soviet Union in 1972, a lot of trafficking and boasting between Soviet and American technical specialists promoted the impression that a boom is building in high-technology trade between the two countries. Last week, with the press distracted by more topical matters, a subcommittee of the House Science and Astronautics Committee held three days of hearings on the subject, and was told that talk about trade far exceeds actual trade, the situation is not likely to change soon, and, furthermore, the terms offered by the Soviets are of doubtful value to the US.

The hearings, held Dec. 4-6 by the subcommittee on International Cooperation in Science and Space, heard from a diverse group of government, academic, and industrial officials who, in one way or another, have been concerned with Soviet-American economic relations.

Typical of the witnesses was Lowell W. Steele, of GE's Research and Development Planning Group, who said that his company is eager to get on with deals with the Soviets but that the pace of negotiations is extremely slow. Agreements to agree come easily, he testified, but "Subsequent discussions seeking areas for substantive interchange proceed much more slowly. To some extent, the slow pace results from the care exercised on both sides to insure that each does not disclose more information than it receives . . . By our normal standards, this relationship is developing slowly and patience and persistence are needed to arrive at an end result. The arrangements for seminars and the interchange of information in the agreed-upon areas are proceeding slowly," Steele reported, adding, "As you would expect, we have seen some work that is behind the state of the art, some which is equal to work in the West, some which is advanced but not relevant to our interests, and some which has the potential for future exchanges if satisfactory terms can be established." The main impression he left, however, was that the two parties were yet to get up to moving at deliberate speed.

Steele's assessment was backed up by John V. N. Granger, deputy director of the State Department's Bureau of International Scientific and Technological Affairs. "While US exports to the Soviet Union have grown markedly since the conclusion of agreements for cooperation in science and technology and in trade in 1972," he said, "it is not likely, we believe, that trade in areas of advanced technology will increase dramatically in the next few years."

The reasons he offered were not flattering to the Soviet Union. The USSR, he testified, is short of convertible currency, and it lacks "the large numbers of skilled technicians required to manufacture, install, maintain and operate advanced technology systems." Also, he said, centralized planning in the USSR created managerial inflexibilities that interfered with the introduction of new manufacturing technologies.

As for whether the US would be building up a trade competitor by making its technology available

to the Soviets, Granger again expressed little respect for Soviet talents. "The Soviet Union is an inefficient producer compared with the US," he said. "Their industrial labor productivity is reliably estimated to be 40 percent of that of the US, and their rate of productivity growth has stagnated in recent years. The reasons this is so . . . are inherent to the Soviet economic and political system. We do not believe, therefore, that the Soviet Union, even when strengthened by greater access to US tech-

(Continued on page 7.)

Proxmire May Bury Prizes

Those much-delayed Presidential Prizes in Science and Innovation, carrying a total value of at least \$300,000, won't be awarded at all, if Sen. William Proxmire (D-Wis.), chairman of the Senate subcommittee on science appropriations, has his way.

The new prizes were first announced by President Nixon in his March 16, 1972 message on science and technology. They were described as an effort "to encourage needed innovations in key areas of public concern" and were supposed to serve as "an important symbol of the Nation's concern for our scientific and technological challenges." Each prize was to carry a substantial monetary award, as much as \$50,000 according to some early plans.

According to an inquiry carried out by the General Accounting Office at Proxmire's request, nominations for the awards were submitted to the former White House Office of Science and Technology (since abolished) before June 30, 1972, winners were selected before September 25, 1972, and funds totaling \$300,000 were obligated for the prizes from the National Science Foundation's Experimental R&D Incentives Program. But the prizes were never awarded.

What happened to cool the Administration's ardor has never been explained. One theory is that the list of winners was heavily studded with "establishment" figures who did not symbolize youthful innovation. The demise of OST and the Administration's preoccupation with other matters presumably also slowed the awards process.

Whatever the reason, Proxmire, in a Dec. 2 statement, called it a "waste of Congressionally appropriated funds" for NSF, which inherited the checks from OST, to keep them locked in a safe at the same time NSF is requesting a supplemental appropriation of \$8.2 million for the current fiscal year. He suggested that the prize money be "reobligated to help meet the critical demand for energy research," and that the names of the winners be released "so that they may receive the public acclaim which they undoubtedly deserve for their achievements in science."

Since Proxmire's subcommittee will largely determine whether NSF gets its supplemental appropriation, his views may prevail.

Photocopy Decision Jolts Scientific Journals

A decision handed down by the US Court of Claims on Nov. 27 has brought joy to libraries which photocopy articles from scientific journals but gloom to publishers who feel such photocopying will drive many financially pressed journals out of business.

In a 4-3 decision, the court dismissed a petition in which the Williams & Wilkins Co., a small Baltimore-based publisher of 37 medical journals, alleged that the National Library of Medicine and the National Institutes of Health library had infringed its copyrights by photocopying articles from Williams & Wilkins' journals and sending them to library users.

Such copying has become widespread as copying machines have proliferated. The NIH library copied about 93,000 articles in 1970, while the National Library of Medicine filled some 120,000 loan requests in 1968 by photocopying journal articles.

The suit has attracted great interest in scientific and publishing circles because of its potentially far-reaching implications. The American Chemical Society, the American Institute of Physics, and the Association of American University Presses were among groups that submitted *amicus curiae* briefs in

SOVIETS (Continued from page 6.)

nology, will in the foreseeable future threaten the US position in the world market for the products of advanced technology."

The only Cold War rhetoric delivered to the subcommittee came from Mose L. Harvey, director of the Center for Advanced International Studies, University of Miami, Coral Gables. High-technology trade with the US, he contended, is simply another element of the Soviet scheme for "ultimate triumph on a world scale." The Soviets, he said, see the US in a "state of significant decline," and they seek to accelerate the shift of national power by acquiring our advanced technology. Harvey concluded with a warning that the Soviets, because of over-committed gold reserves and production, are unable to pay for their American acquisitions without longterm credits from us. As for swaps of technology, he concluded that "the USSR has little in the way of products, and certainly little in the way of advanced technology, that this country wants, needs, or could even use."

Among the other witnesses were Charles Wolfe Jr., chairman of the Rand Corporation's economics department, who said the Soviets are benefiting more than the US from the exchanges that have taken place so far, and J. Fred Bucy Jr., executive vice president of Texas Instruments, who took the position that American firms should receive better patent protection when they engage in deals with the Soviets. Otherwise, he said, the Soviets make a one-time payment, receive technology that was costly to develop, and then are free to exploit it as they please without benefit to the firm that originated the technology. "We at TI," he testified, "are very protective of (our) technology and as we have released it to foreign markets, we have done so under very special conditions."

support of Williams & Wilkins. The two medical libraries were backed by the American Library Association, the National Education Association, the American Medical Association, and several medical schools, among others.

Williams & Wilkins won the first round in the legal battle when a trial judge of the US Court of Claims issued a recommendation in the publisher's favor last year. But the final decision of the full court took the opposite position and exonerated the libraries.

The majority of the court concluded that Williams & Wilkins had not proved financial harm from the copying but that medical science would almost certainly suffer (from a slowdown in the flow of information) if library photocopying were deemed a copyright infringement. The majority also said Congress should resolve the issue of how much photocopying should be allowed, and it opted to retain the status quo in a "holding operation" until Congress acts.

The minority opinion concluded just the opposite—that Williams & Wilkins suffered harm, that medical research would not be harmed (because photocopying could continue with payment of royalties), and that the court should not grant the libraries "a blanket exemption" while awaiting congressional action.

The majority opinion stressed that it was ruling on the facts in a particular case and was not setting broad policy on "fair use" of copyrighted materials. But in evaluating such use, it said, "we should give the benefit of the doubt—until Congress acts more specifically—to science and the libraries, rather than to the publisher and the owner."

At this writing, Williams & Wilkins has not yet decided whether to appeal to the Supreme Court, though an attorney representing the publisher said he assumed there would be an appeal. Meanwhile, the combatants will resume the struggle in Congress, where a Senate subcommittee is preparing a revision of copyright law and a House subcommittee is expected to hold copyright hearings next year.

Science & Government Report

Kalorama Station

Box 21123B

Washington, D. C. 20009

- Renew my subscription
- Enter my subscription

for one year, \$44 ; two years, \$80

(Overseas airmail, \$10 additional per year.)

- check enclosed; please bill.
- Send a complimentary copy to:

Name _____

Address _____

Zip _____

Benno Schmidt Criticizes Biomedical Policies

Benno C. Schmidt, the New York venture capitalist who heads the President's Cancer Panel, believes the Nixon Administration made "a serious mistake" when it cut training grants and fellowships at the National Institutes of Health. He is also disappointed that the Administration reduced funds for biomedical research outside the cancer and heart areas.

Such views are common enough in the biomedical community, where the scientific leadership tends to accuse the Administration of butchering biomedical research and education while favoring the politically popular cancer and heart programs. But the views gain added credence when uttered by Republican financier Schmidt, whose cancer program, after all, is the one most favored by the Administration.

Schmidt, who is managing partner of J.H. Whitney & Co., expressed his criticism in a Nov. 29 speech in New York to the National Conference on Virology and Immunology in Human Cancer, sponsored by the American Cancer Society and the National Cancer Institute.

He said his "biggest disappointment" as cancer panel chairman was a decision by the Office of Management and Budget to discontinue training grants and fellowships, an action which he said would harm the cancer program as well as other biomedical research. "It is absolutely essential to our success that we bring our brightest young men into this program," he said, "and fellowships and training grants have proved to be the most effective and most economical way of doing that."

Although the Administration, which had originally tried to terminate training funds entirely, backed down under pressure from Congress and the scientific community and reinstated a fellowship program about half the size of the previous one, Schmidt said this is "not, in my opinion, sufficient." He said he had "not given up hope" of getting more training

funds reinstated and had "a very good hearing on the matter in my last meeting with OMB."

Schmidt said his "other principal disappointment" has been that, while cancer funds have increased (from \$180 million in 1970 to \$500 million in 1974) and heart funds have increased as well, the budgets for general medical science and for other research institutes at NIH have been reduced. "Neither the cancer program nor biomedical research generally can thrive if these institutes are cut," he said.

But on other issues which have upset the scientific community, Schmidt denied that the situation is "anything like as bad as some of you think it is. . . We are not running loose in the direction of more contracts and less grants, poorer peer review rather than better peer review, or targeting or programming in areas that are not susceptible to that methodology." He noted that grants awarded for cancer research reached \$194 million in the current year, substantially more than the entire budget of the National Cancer Institute in 1970.

Schmidt also took issue with a key Administration official—Charles C. Edwards, assistant HEW secretary for health affairs—who recently suggested that the National Cancer Act of 1971 had committed a mistake when it gave cancer a privileged position at NIH (including access to the White House through the panel Schmidt heads). Calling the act "a sound piece of legislation that has worked extremely well," Schmidt added: "Any mistakes that have been made, and there have been some, have not, in my opinion, been the fault of this legislation."

SCIENCE & GOVERNMENT REPORT. © 1973 by Science & Government Report, Inc. All rights reserved. Daniel S. Greenberg, Publisher; Philip M. Boffey, Managing Editor; Kay Boffey, Circulation Manager. Published 22 times per year at 1629 Columbia Road, N.W., Washington, D.C. 20009. Subscription rate, \$44 a year; overseas airmail subscription, \$54. Second class postage paid at Washington, D.C. Vol. III, No. 22, Dec. 15, 1973.

Science & Government Report
Kalorama Station
Box 21123
Section B
Washington, D.C. 20009

Second class postage paid
at Washington, D.C.

NEWSLETTER—
Please expedite delivery directly to addressees

